

Listing of Claims

1. (currently amended) A method for ~~improving~~ changing the color of discolored natural diamond selected from one of a Type IaB, Type IaA/B , Type IaA or Type Ib diamond, said diamond having at least one of A Centers, B Centers, and C Centers, or combinations thereof, said method comprising:

- (a) placing said discolored natural diamond in a pressure transmitting medium;
- (b) consolidating said pressure transmitting medium into a pill;
- (c) exposing said pill to an elevated pressure of at least 10 kilobars and an elevated temperature of at least 1500°C within the graphite stable or diamond stable range of the carbon phase diagram for a time sufficient to ~~improve~~ change the color of said diamond; and
- (d) recovering said diamond.

2. (currently amended) The method of claim 1, wherein said discolored natural diamond has a total nitrogen concentration less than 500 ppm.

3. (currently amended) The method of claim 1, wherein said discolored natural diamond is a Type IaB, Type IaA/B , Type IaA or Type Ib diamond with platelets.

4. (currently amended) The method of claim 1, wherein said discolored natural diamond is a Type IaB.

5. (currently amended) The method of claim 1 wherein said discolored natural diamond is Type IaA/B.

6. (currently amended) The method of claim 1 wherein said discolored natural diamond is Type IaA.

7. (original) The method of claim 1, wherein the recovered diamond is neon yellow-green color.

8. (original) The method of claim 1, wherein the recovered diamond has yellowish green color.

9. (original) The method of claim 1 wherein the recovered diamond has greenish yellow color.

10. (original) The method of claim 1, wherein said elevated temperature ranges from about 1500° to 3500° C and said elevated pressure ranges from about 10 to about 100 kilobars.

11. (original) The method of claim 6, wherein said elevated pressure ranges from about 20 to about 80 kilobars.

12. (original) The method of claim 1, wherein said recovered diamond is subjected to step (c) a plurality of times.

13. (original) The method of claim 1, wherein said pressure transmitting medium is thermally and chemically stable at HP/HT and is selected from the group consisting of a salt, an oxide, or graphite.

14. (original) The method of claim 2 wherein the final concentration of A Centers is less than 50 ppm.

15. (original) The method of claim 1 wherein the total concentration of nitrogen is less than 50 ppm.

16. (currently amended) The method of claim 2 where the final concentration of C Centers ~~concentration~~ is less than 2 ppm.

17. (original) The method of claim 9, wherein said pressure transmitting medium is a salt selected from the group consisting of sodium chloride, sodium iodide, sodium bromide,

potassium chloride, potassium iodide, potassium bromide, calcium chloride, calcium iodide and calcium bromide.

18. (original) The method of claim 9, wherein said pressure transmitting medium is selected from the group consisting of magnesium oxide, calcium oxide, and mixtures thereof.

19. (original) The method of claim 9, wherein said pressure transmitting medium is graphite.

20. (original) The method of claim 1, wherein said elevated temperature and elevated pressure are maintained from 30 seconds to 96 hours.

21. (original) The method of claim 1, wherein said elevated temperature and elevated pressure are maintained from 5 minutes to 24 hours.

22. (original) The method of claim 1, wherein said elevated temperature and elevated pressure are maintained from about 5 minutes to about 1 hour.

23. (currently amended) A diamond having a changed color prepared by the method of claim 1, wherein said diamond has a high concentration of H3 centers as determined by H3 absorption line at 503 nm.

24. (previously added) The diamond of claim 23 of fancy gem quality and neon yellow-green in color.

25. (canceled) The diamond of claim 23 of fancy gem quality and neon yellow-green in color.

26. (previously added) The diamond of claim 23 of fancy gem quality and yellowish green color.

27. (previously added) The diamond of claim 23 of fancy gem quality and greenish yellow color.

28. (currently amended) A method for ~~improving~~changing the color of discolored natural diamond selected from one of a Type IaB, Type IaA/B , Type IaA or Type Ib diamond and said diamond having at least one of A Centers, B Centers, C Centers, or combinations thereof, said method comprising the steps of:

- (a) placing said discolored natural diamond in a pressure transmitting medium;
- (b) subjecting said pressure transmitting medium containing said natural diamond to a sufficiently high pressure and high temperature for a time sufficient to change the color of said diamond to ~~colorless or~~ a fancy color; and
- (c) recovering said diamond.

29. (currently amended) A diamond having a changed color prepared by the method of claim 28, and wherein said diamond has a high concentration of H3 centers as determined by H3 absorption line at 503 nm.

30. (new) The method of claim 1, wherein said discolored diamond is brown.

31. (new) The method of claim 28, wherein said discolored diamond is brown.